

What is Claimed Is:

1. A method in a network node, the method comprising:  
detecting by a network interface a depletion of flow control resources representing a depletion of network bandwidth for a prescribed data stream;  
outputting by the network interface a data flow interruption request based on the detected  
5 depletion of flow control resources; and  
reducing, by a processor and based on the data flow interruption request, the prescribed data stream by reducing execution of a prescribed application resource configured for generating the prescribed data stream.
2. The method of claim 1, wherein the network interface is configured for outputting the prescribed data stream according to InfiniBand™ protocol, the detecting step including detecting the depletion of flow control credits, as the flow control resources, for a prescribed virtual lane.
3. The method of claim 2, wherein the outputting step includes outputting the data flow interruption request to a memory controller configured for controlling access to system memory resources, the memory controller rendering unavailable the system memory resources for the prescribed application resource in response to reception of the data flow interruption request.
4. The method of claim 3, wherein the reducing step includes halting execution of the prescribed application resource, based on a determined unavailability of the system memory resources.
5. The method of claim 4, further comprising outputting by the network interface a resume data flow request based on a detected replenishment of the flow control resources for the prescribed data stream.
6. The method of claim 5, further comprising resuming execution of the prescribed application resource based on the resume data flow request.

7. A network node comprising:

a network interface configured for detecting a depletion of flow control resources representing a depletion of network bandwidth for a prescribed data stream, the network interface configured for outputting a data flow interruption request based on the detected depletion of flow control resources;

5 and

a processor configured for executing a prescribed application resource for generation of the prescribed data stream, the processor configured for reducing the prescribed data stream by reducing execution of the prescribed application resource, based on the data flow interruption request.

8. The network node of claim 7, further comprising a memory controller configured for controlling access to system memory resources, the memory controller configured for rendering unavailable the system memory resources for the prescribed application resource in response to reception of the data flow interruption request.

9. The network node of claim 8, wherein the processor is configured for reducing the execution of the prescribed application resource based on detecting the unavailability of the system memory resources.

10. The network node of claim 9, wherein the network interface is configured for outputting a resume data flow request based on a detected replenishment of the flow control resources for the prescribed data stream.

11. The network node of claim 10, wherein the processor is configured for resuming execution of the prescribed application resource based on the resume data flow request.

12. The network node of claim 7, wherein the network interface is configured for outputting the prescribed data stream according to InfiniBand™ protocol, the network interface configured for detecting the depletion of flow control credits, as the flow control resources, for a prescribed virtual lane.